

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A computer-readable recording medium having a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

a data area storing at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and

a navigation area storing at least one navigation list, the at least one navigation list including one or more navigation data items and controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of the files and providing position data for the video data of the associated file.

2. (Original) The recording medium of claim 1, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

3. (Original) The recording medium of claim 2, wherein each data block represents at least an intra-coded picture of video data.

4. (Original) The recording medium of claim 3, wherein each data block represents at least one group of pictures (GOP).

5. (Cancelled)

6. (Previously Presented) The recording medium of claim 1, wherein each of the one or more navigation data items provide navigation information for reproducing at least one of the files.

7. (Cancelled)

8. (Previously Presented) The recording medium of claim 1, wherein the at least one navigation data item includes a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

9. (Previously Presented) The recording medium of claim 6, wherein the at least one navigation data item includes a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

10. - 13. (Cancelled)

14. (Original) The recording medium of claim 1, wherein each reproduction path represents a digital channel.

15. (Original) The recording medium of claim 1, wherein each reproduction path represents a sub-channel of an RF channel.

16. (Currently Amended) A method of recording a data structure for managing reproduction of at

least video data representing multiple reproduction paths, comprising:

recording at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and

recording at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of the files and providing position data for the video data of the associated file.

17. (Currently Amended) A method of reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

reading at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of a plurality of files and providing position data for video data of the associated file; and

reproducing at least the video data as a transport stream in more than one file from a recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

18. (Currently Amended) An apparatus for recording a data structure for managing reproduction duration at least video data representing multiple reproduction paths, comprising:

a pickup configured ~~driver for driving an optical recording device~~ to record data on a recording medium; and

a controller, operably coupled to the pickup, configured to control recording ~~for controlling the driver to record~~ at least video data as a transport stream in more than one file on the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another, and the controller configured further to control recording ~~controlling the driver to record~~ at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of the files and providing position data for the video data of the associated file.

19. (Currently Amended) An apparatus for reproducing a data structure for managing reproduction duration of at least video data representing multiple reproduction paths, comprising:

a pickup configured to ~~driver for driving an optical reproducing device~~ to reproduce data recorded on a recording medium; and

a controller, operably coupled to the pickup, configured to control reproducing ~~for controlling the driver to reproduce at least video data as a transport stream in more than one file from the recording medium, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another, the controller controlling the driver to~~

~~reproduce~~ at least one navigation list, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of the files and providing position data for the video data of the associated file, and the controller configured further to control reproducing at least video data as a transport stream in more than one file from the recording medium according to the reproduced the at least one navigation list, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another.

20. (Currently Amended) A method for creating a data structure for managing reproduction of at least video data representing multiple reproduction paths, comprising:

generating recording at least video data as a transport stream in more than one file, each file associated with a different one of the multiple reproduction paths, and the files being interleaved with one another; and

generating recording at least one navigation list for managing reproduction of at least video data, one or more navigation items and a plurality of maps, the at least one navigation list including one or more navigation data items controlling a reproduction order of the one or more navigation data items, at least one navigation data item referencing more than one map and including an indicator for indicating that the corresponding at least one navigation data item is provided for the multiple reproduction paths, each map being associated with one of the files and providing position data for the video data of the associated file.

21. (Previously Presented) The method of claim 16, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

22. (Previously Presented) The method of claim 21, wherein each data block represents at least an intra-coded picture of video data.

23. (Previously Presented) The method of claim 16, wherein the at least one navigation data item includes a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

24. (Previously Presented) The method of claim 16, wherein each reproduction path represents one of a digital channel and a sub-channel of an RF channel.

25. (Previously Presented) The method of claim 17, wherein each file is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

26. (Previously Presented) The method of claim 25, wherein each data block represents at least an intra-coded picture of video data.

27. (Previously Presented) The method of claim 17, wherein the at least one navigation data item includes a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

28. (Previously Presented) The method of claim 17, wherein each reproduction path represents one

of a digital channel and a sub-channel of an RF channel.

29. (Currently Amended) The apparatus of claim 18, wherein the controller is configured to control recording each file being is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

30. (Previously Presented) The apparatus of claim 29, wherein each data block represents at least an intra-coded picture of video data.

31. (Currently Amended) The apparatus of claim 18, wherein the controller is configured to control recording the at least one navigation data item including ~~includes~~ a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

32. (Currently Amended) The apparatus of claim 18, wherein the controller is configured to control recording transport packets of each reproduction path representing ~~represents~~ one of a digital channel and a sub-channel of an RF channel.

33. (Currently Amended) The apparatus of claim 19, wherein the controller is configured to control reproducing each file being is divided into data blocks, and the files are interleaved with one another on a data block by data block basis.

34. (Previously Presented) The apparatus of claim 33, wherein each data block represents at least an intra-coded picture of video data.

35. (Currently Amended) The apparatus of claim 19, wherein the controller is configured to control reproducing the at least one navigation data item including ~~includes~~ a multiple reproduction path indicator for indicating that the at least one navigation data item provides navigation information for multiple reproduction paths.

36. (Currently Amended) The apparatus of claim 19, wherein the controller is configured to control reproducing transport packets of each reproduction path representing ~~represents~~ one of a digital channel and a sub-channel of an RF channel.